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## Skin pain and psoriasis

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39 **Keywords:** psoriasis, skin, pain, patient-reported outcome, quality of life

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42 Some studies suggested that patients with psoriasis may experience skin pain<sup>1-5</sup>, but included a  
43 small number of patients without any comparison with healthy subjects. We performed a survey on a  
44 large representative sample of the French population to evaluate the presence, frequency and  
45 characteristics of skin pain among patients with psoriasis. Methods are given as supplementary data.

46 Among the 5,000 interviewed people, 244 declared suffering from psoriasis (men: 53%, women  
47 47%; mean age: 47,96 ±15 years), with a prevalence of 4.8%, IC [4.2% to 5.4%], and 3,247 did not declare  
48 any skin disease (men: 49.6%, women: 50.4%; mean age: 47.25 ±16.4 years) and were considered controls.  
49 Skin pain (VAS: 5.83/10 vs 4.34/10), pruritus and tingling were more frequently reported by patients than  
50 controls (Table 1). Patients reporting skin pain were younger (43.69 ± 14.43 years vs. 49.9 ± 14.82 years;  
51  $p<0.05$ ). The proportion of women with skin pain was higher than the proportion of men (39.45 vs.  
52 28.35%;  $p<0.05$ ). Patients with painful psoriasis were more likely to have consulted a dermatologist in the  
53 previous 3 months (67.1% vs. 34.6%;  $p<0.001$ ). Significant differences in the MCS-12 (39.18 vs. 42.97;  
54  $p<0.05$ ) and DLQI scores (13.62 vs. 7.66;  $p<0.000001$ ) were noted.

55 Univariate analysis showed that patients declaring skin pain were more often aged over 50 years  
56 (OR (95%CI) = 0.48 (0.28-0.83);  $p<0.01$ ), had more frequent consultations with dermatologists (OR (95%CI)  
57 = 3.86 (2.20-6.67);  $p<0.001$ ) and had more alterations of the quality of life measured by the DLQI (OR  
58 (95%CI) = 4.70 (2.65-8.34);  $p<0.001$ ) as well as the MCS-12 (OR (95%CI) = 0.43 (0.21-0.88);  $p<0.05$ ).  
59 Multivariate analysis showed differences only for DLQI and the consultations with a dermatologist (Figure  
60 1).

61 To our knowledge, this study is the largest comparative study on skin pain in patients with  
62 psoriasis. One-third of patients with psoriasis reported skin pain, and half reported tingling and a large  
63 majority reported pruritus. In patients with skin pain, a neuropathic component was suggested in a  
64 majority of patients using the DN4 questionnaire. Patients with skin pain more frequently consult

65 dermatologists, and their quality of life was more altered. Skin pain is very rarely evaluated in clinical trials,  
66 and there is a need to include it in patient-related outcomes. Because skin pain intensity was almost 6/10,  
67 painkillers as well as very effective treatments of psoriasis, are justified.

68 Our study showed that patients with painful psoriasis were younger, which was quite surprising  
69 while they were more frequently women. The main limitation of this study was that the diagnosis of  
70 psoriasis was reported by patients but many studies previously used surveys to assess or approach the  
71 prevalence of skin diseases.

72 In summary, this study showed that skin pain is reported by one-third of patients with psoriasis,  
73 with an intensity of 6/10 and with consequences on the quality of life. The management of skin pain is an  
74 unmet need, and additional clinical trials should be conducted to alleviate the suffering of patients.







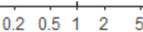
75 **References**

- 76 1. Misery L, Saint Aroman M, Zkik A, Briant A, Martin L, Sigal ML et al. Chronic Pain in Patients with Skin  
77 Disorders. *Acta Derm Venereol* 2017;97:986-8.
- 78 2. Ljosaa TM, Rustoen T, Mörk C, Stubhaug A, Miaskowski C, Paul SM et al. Skin pain and discomfort in  
79 psoriasis: an exploratory study of symptom prevalence and characteristics. *Acta DermVenereol*  
80 2010;90:39-45.
- 81 3. Sampogna F, Gisondi P, Melchi CF, Amerio P, Girolomoni G, Abeni D. Prevalence of symptoms  
82 experienced by patients with different clinical types of psoriasis. *Br J Dermatol* 2004;151:594-9.
- 83 4. Verhoeven EW, Kraaimaat FW, van de Kerkhof PC, van Weel C, Duller P, van der Valk PG et al.  
84 Prevalence of physical symptoms of itch, pain and fatigue in patients with skin diseases in general  
85 practice. *Br J Dermatol* 2007;156:1346-9.
- 86 5. Patruno C, Napolitano M, Balato N, Ayala F, Megna M, Patri A et al. Psoriasis and Skin Pain:  
87 Instrumental and Biological Evaluations. *Acta Derm Venereol* 2015;95:432-8.

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90 **Figure 1: Differences between patients with psoriasis who suffered from skin pain and those who did**  
 91 **not have skin pain. Multivariate analysis.**

Variable	N	Odds ratio	p
Sex	244		1.22 (0.66, 2.24) 0.528
Age	244		0.71 (0.36, 1.42) 0.330
Consultation Dermatologist	244		2.84 (1.50, 5.45) 0.001
Smoker	244		0.87 (0.45, 1.67) 0.688
DLQI	244		2.74 (1.42, 5.34) 0.003
SF12-PCS	244		0.70 (0.37, 1.30) 0.257
SF12-MCS	244		0.68 (0.29, 1.50) 0.352

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94 **Table 1:** Main characteristics of patients with psoriasis and controls

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	Psoriasis patients	Controls	p
Skin pain	33.2%	6.0%	<0.0001
Neuropathic component of pain (in case of pain)	63.9%	48.2%	<0.005
Pruritus	95.1%	53.3%	<0.000001
Tingling	71.9%	54.9%	<0.005

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